filter/sieves or water blockage zones at the desired depths of penetration from the wellbore. It can be of significant economic benefit if, upon having injected the design quantities of gel or polymer chemical, spacer, and push volumes, the final wellbore volume injected into the well is an inert gas, diesel, crude oil or mixtures thereof. The well is then shut in to enable gelation or polymerization to take place under static conditions in the reservoir.

The use of an inert gas, condensate, diesel or crude oil wellbore volume as described can remove the need for unloading the well. In the case of using an inert gas such as nitrogen, the wellbore will be filled with the volume of gas required to attain the pressure in the reservoir, but, in point of fact, as the water is pushed back to a certain point into the formation the reservoir will begin to flow gas into the wellbore and will only cease once the reservoir pressure has been reached. Opening the well to production should result in economic production.

In the case of using condensate/diesel or crude oil to fill the wellbore volume, there will be approximately an 18%-20% reduction in the weight of fluid in the wellbore. As the fluid weight decreases in the wellbore the reservoir will begin to contribute gas and oil fluids to commingle with the injected condensate, diesel or crude oil. Upon shutting in the well, ongoing solution of gas and oil/condensate fluids into the wellbore fluids will occur.

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